

REMARKS

This Amendment is submitted in response to the office action dated March 7, 2003. A petition for a one-month extension is attached herein. From the office action, the Examiner suggests a new title, the drawings are objected to because they are labeled "Substitute Sheet (Rule 26)", and Figure 1 is objected to for not being labeled "Prior Art". Moreover, claims 2-12 and 14-25 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Claims 24 and 25 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite in that it fails to point out what is included or excluded by the claim language. Furthermore, claims 13-23 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter. Claims 4-12 and 16-23 are objected to under 37 CFR 1.75(c) because a multiple dependent claim cannot depend on any other multiple dependent claim. Claims 1-4 and 13-16 are also rejected under 35 U.S.C. 102(b) as being anticipated by Sollish (WO 98/08180) (hereinafter Sollish) in view of Merriam-Webster's Collegiate Dictionary (hereinafter Webster). Finally, claims 5, 11, 17 and 23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sollish in view of Maeda et al. (US Patent No. 5,153,861) (hereinafter Maeda et al.).

In response, Applicant agrees, as suggested by the

Examiner, that the title of the invention be changed to "Copy Protection of Digital Audio Compact Discs By Rendering Control Data Incorrect or Inaccurate". Additionally, drawings with proposed corrections are submitted to overcome the Examiner's objections. New formal drawings removing the labeling are hereby submitted.

Applicant notes that the Examiner examined the claims which were filed with and published in the associated International Application (WO 00/74053) and not the claims submitted in the preliminary amendment dated January 24, 2001. In the preliminary amendment, claims 1-25 have been cancelled and replaced by new claims 1-21. A copy of the preliminary amendment as filed is enclosed for your reference.

In the current amendment, Claims 1, 8-14, and 19-21 have been amended (relative to the preliminary amended claims) to more clearly describe and claim the invention as well as to overcome various objections and rejections. Moreover, new claims 22-30 have been added to replace multiple dependent claims and to clarify potential vagueness associated with the use of the logical "or". No new matter has been added. Claims 1-30 are now pending. Additionally, the following remarks are submitted to specifically address the Examiner's individual objections and rejections.

35 USC Section 112, Second Paragraph, Rejections

With regard to the rejection of claims 2-3, as stated earlier, a preliminary amendment was submitted on January 24, 2001. In the preliminary amendment, claims 2-3 have been incorporated into independent claim 1. In so doing, there is no longer a lack of antecedent basis. Moreover, independent method claim 1 has been amended to eliminate the limitation "and/or inaccurate" to avoid confusion.

With regard to the rejection of claims 14, 16, 21, and 23, the preliminary amendment has made the lack of antecedent basis a moot issue. Moreover, independent apparatus claim 12 has been amended to eliminate the limitation "and/or inaccurate" to avoid confusion.

With regard to the rejection of claims 24 and 25, these claims have been cancelled in the preliminary amendment.

Hence, the 35 USC Section 112, second paragraph, rejections are overcome.

35 USC Section 101 Rejections

With regard to the 101 rejection of claims 13-23, the relevant independent claims following the preliminary amendment are claims 12 and 19.

As amended, claims 12 and 19 recite:

"[a] copy protected digital audio compact
disc carrying audio data and control data..."

As recited, independent claims 12 and 19 are clearly directed to a digital audio compact disc. It is well known that a digital audio compact disc is a type of "memory containing stored information" which has been ruled by the Court of Appeal of the Federal Circuit as an article of manufacture (*In Re Gulack*, 703 F.2d 1381 (Fed. Cir. 1983)). As a result, independent claims 12 and 19 and their associated dependent claims are allowable under 35 USC Section 101.

35 USC Section 102 Rejections

Sollish describes a 'signature' technique for optical discs (page 16, lines 1-22), for example, CD-ROMs. With a signature technique, distinctive information is incorporated on the CD. This information is chosen such that if the disc is copied the signature will not be copied. When a CD-ROM is inserted into a drive or data reader, software on the disc, or in the drive, looks first for the signature. If it is there, signifying a genuine disc, access to the data on the disc is allowed. If the signature is not apparent, signifying a counterfeit disc, play of the disc is prevented.

For CDs, Sollish gives, as examples of special symbols which are made to occur at specific locations, a valid but incorrect symbol, an invalid symbol, or an invalid symbol containing an RLL error (page 15, lines 3-5; page 25, lines 26-27; page 26, lines 1-4). In addition, error correcting

code words formed on the disc are also altered to ensure that the error correction of a data reader is overridden (page 22, lines 6-10). In this manner, Sollish describes how it is possible to write non-copyable symbols onto a disc for use as a signature (page 16, lines 14-22).

However, the techniques described in Sollish have no relevance to the present invention which does not involve a signature technique. Rather, the present invention teaches a drastic method of copy protection which negatively effects the playability of copy protected compact discs in CD readers. This has the drastic effect that a consumer who buys a legitimate compact disc, which has been copy protected by a method of the invention, will find that he cannot legitimately play the audio data using the drive in his computer system.

This concept of preventing the legitimate use of a legitimate disc as a result of the copy protection is simply not contemplated by Sollish.

The present invention identifies the different control information which is used by a simple audio player and by a CD reader such as a CD drive in a computer. The invention then teaches the encoding onto the compact disc of errors in the control data. The erroneous control data is specifically chosen to have no adverse effect on the play of the disc by an audio player but to negatively effect the use of the disc by the CD reader. Again, the idea of encoding a disc such that different types of access devices produce different results when they try to access the

information on the disc is neither disclosed nor contemplated in Sollish.

The Examiner comments that Sollish discloses that the incorrect data encoded onto the CD renders the disc generally unplayable by a data reader. In Sollish a check is made by the data reader to establish the presence of non-copyable symbols. If those symbols are NOT present, then reading or playing of the disc is prevented. This is the complete opposite of the invention where it is the existence of the incorrect control data which renders the disc generally unplayable by a computer drive. However, as an audio player cannot access such control data and, for example, cannot make the checks described in Sollish, the audio player will play as usual.

As amended, independent claims 1, 8, 12, and 19 recite:

"...whereas the incorrect control data negatively effects the playability of the audio data in a data reader..."

Accordingly, it is submitted that independent claims 1, 8, 12, and 19 and their associated dependent claims are clearly distinguished from, and is not anticipated by Sollish.

We have noted the Examiner's comments on the language used in the claims and confirm that the chosen language is in accordance with the definitions in the dictionary extracts referred to.

35 USC Section 103 Rejection

The Examiner also suggests that the present invention can be arrived at by modifying Sollish using the teaching in US 5,153,861, Maeda. However, while the invention and Sollish are concerned with copy protection techniques, Maeda is not. Maeda describes how to enable a user to alter control data on a disc, for example, by using rewritable discs and editing control data in the Lead-In region to improve the reproduction process (column 2, lines 40-49; independent claim 1). Clearly, the techniques taught in Maeda are diagonally opposite to copy protection techniques as taught by Sollish and the present invention which are designed to prevent illicit reproduction/copying of content. As a result, Maeda teaches away from Sollish and there is clearly no incentive for a person of ordinary skill in the art to combine the teachings Sollish with Maeda. Any suggestions otherwise are likely to be impermissible hindights.

Accordingly, the present invention is not obvious under 35 U.S.C. 103 over Sollish in view of Maeda.

Accordingly, reconsideration of claims 1-30 is respectfully requested, and an early indication of their allowability is earnestly solicited. Should the Examiner have any questions or comments, he is encouraged to call Applicants' attorney, Frank D. Nguyen, at (408) 562-8424 to discuss the same so that any outstanding issues can be expeditiously resolved.

Respectfully submitted

Dated: 06/30/03

By: Frank D. Nguyen
Frank D. Nguyen
Reg. No. 39,790

PCT/GB00/02011

Preliminary Amendment for USA

CLAIMS

5

1. A method of copy protecting a digital audio compact disc carrying audio data and control data, wherein the control data is encoded onto the compact disc, the copy protection method comprising the step of rendering selected control data incorrect and/or inaccurate, said selected control data being
10 inaccessible to, or not generally read by, an audio player, such that an audio player is able to play the audio data, whereas the incorrect control data renders the disc generally unplayable by a data reader.

15 2. A method according to Claim 1, wherein the control data encoded on the compact disc which has been rendered incorrect is navigation and/or timing data.

3. A method according to Claim 2, wherein control data is provided in a
20 Lead-In on the disc, and the incorrect control data is provided in the Lead-In, and identifies the position on the disc of the Lead-Out of the disc.

4. A method according to Claim 3, wherein control data in the Lead-In which indicates the Atime at the start of the Lead-Out is rendered incorrect.

25 5. A method according to Claim 4, wherein the control data in the Lead-in shows the Atime at the start of the Lead-Out to be zero.

6. A method according to Claim 4, wherein the control data in the Lead-In
30 has a value for the Atime at the start of the Lead-Out which occurs during a first audio track on the compact disc.

7. A method according to Claim 1, wherein control data encoded on the compact disc defining the nature of the tracks is rendered incorrect.

35

8. A method of copy protecting a digital audio compact disc carrying audio data and control data, wherein the control data is encoded onto the compact disc, the copy protection method comprising the step of rendering selected control data incorrect and/or inaccurate, said selected control data being
5 inaccessible to, or not generally read by, an audio player, such that an audio player is able to play the audio data, whereas the incorrect control data renders the disc generally unplayable by a data reader, and wherein control data encoded on the compact disc defining the nature of the tracks is also rendered incorrect.

10

9. A method according to Claim 7 or Claim 8, wherein data on the CD identifying the nature of the tracks incorrectly identifies each audio track as a data track.

15

10. A method according to Claim 1 or Claim 8, wherein the data encoded on the compact disc which is rendered incorrect is data in the Table of Contents (TOC) of the compact disc.

20

11. A method according to Claim 1 or Claim 8, wherein the control data encoded on the compact disc is altered, to render it incorrect, prior to mastering of the disc.

25

12. A copy protected digital audio compact disc carrying audio data and control data, wherein the control data is encoded onto the compact disc, and wherein selected control data has been rendered incorrect and/or inaccurate, said selected control data being inaccessible to, or not generally read by, an audio player, such that an audio player is able to play the audio data, whereas the incorrect control data renders the disc generally unplayable by a data reader.

30

13. A copy protected digital audio disc according to Claim 12, wherein the incorrect control data on the disc is navigation and/or timing data.

35

14. A copy protected digital audio compact disc according to Claim 13, wherein control data is provided in a Lead-In on the disc, and the incorrect

control data is provided in the Lead-In and identifies the position on the disc of a Lead-Out of the disc.

15. A copy protected digital audio compact disc according to Claim 14,
5 wherein the incorrect control data in the Lead-In indicates incorrectly the Atime at the start of the Lead-Out.

16. A copy protected digital audio compact disc according to Claim 15,
10 wherein the incorrect control data in the Lead-In shows the Atime at the start of the Lead-Out to be zero.

17. A copy protected digital audio compact disc according to Claim 15,
wherein the incorrect control data in the Lead-In has a value for the Atime at the
start of the Lead-Out which occurs during a first audio track on the compact disc.

15

18. A copy protected digital audio compact disc according to Claim 12,
wherein the incorrect control data encoded onto the compact disc defines the
nature of the tracks on the disc.

20 19. A copy protected digital audio compact disc carrying audio data and
control data, wherein the control data is encoded onto the compact disc, and
wherein selected control data has been rendered incorrect and/or inaccurate,
said selected control data being inaccessible to, or not generally read by, an
audio player, such that an audio player is able to play the audio data, whereas
25 the incorrect control data renders the disc generally unplayable by a data
reader, and wherein the incorrect control data encoded onto the compact disc
also defines the nature of the tracks on the disc.

20. A copy protected digital audio compact disc according to Claim 18 or
30 Claim 19, wherein the incorrect control data incorrectly identifies each audio
track as a data track.

21. A copy protected digital audio compact disc according to Claim 18 or
Claim 19, wherein the incorrect control data encoded onto the compact disc is
35 control data in the Table of Contents (TOC) of the disc.